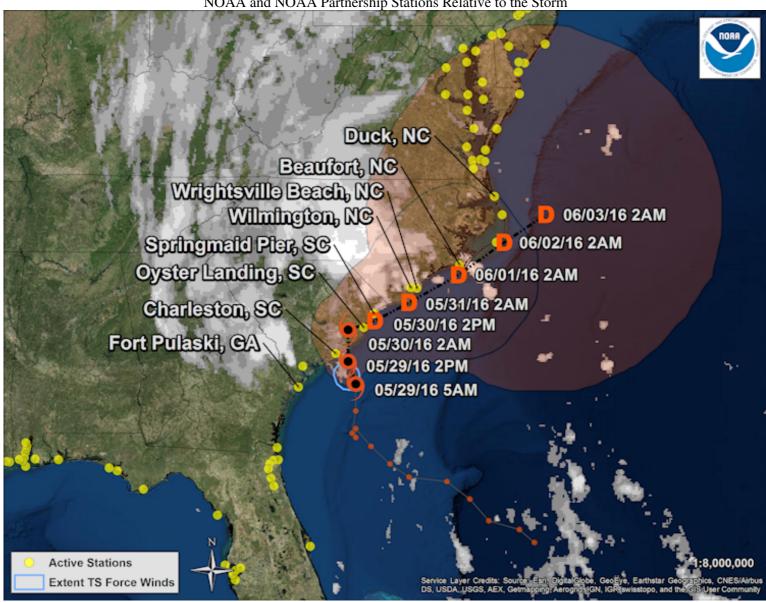




Tropical Storm BONNIE QuickLook Posted: 06:00 EDT 05/29/2016

NOAA and NOAA Partnership Stations Relative to the Storm



### Storm Analysis

As of 05/29/2016 06:00 EDT, water levels from Georgia to Beaufort, NC are slightly elevated and range from 0.6 to 1.6 ft. above normal tide levels. Winds are steady at most stations across the region, with gusts ranging from 15 to 30 kts. Barometric pressure across the region has decreased in the last few hours.

Water Level and Meteorological plots available below are updated automatically. A line denoting <u>Mean Higher High Water</u> (MHHW) is displayed to provide an approximate indication of when flooding inundation may occur.

For additional data, please see the <u>Center for Operational Oceanographic Products & Services</u> website. For more information or archived products and reports, please see the <u>Storm QuickLook</u> Homepage.

Analyst: CRD

\_\_\_\_\_

### SELECT NATIONAL HURRICANE CENTER ADVISORY INFORMATION:

TROPICAL STORM BONNIE ADVISORY NUMBER 7 NWS NATIONAL HURRICANE CENTER MIAMI FL 500 AM EDT SUN MAY 29 2016

...BONNIE WEAKENS SLIGHTLY WHILE IT MOVES NORTHWARD...
...SIGNIFICANT RAINS AFFECTING MUCH OF EASTERN GEORGIA...SOUTH
CAROLINA...AND SOUTHEASTERN NORTH CAROLINA...

#### SUMMARY OF 500 AM EDT...INFORMATION

\_\_\_\_\_

LOCATION...32.1N 79.4W
ABOUT 60 MI... SE OF CHARLESTON SOUTH CAROLINA
ABOUT 115 MI...SSW OF MYRTLE BEACH SOUTH CAROLINA
MAXIMUM SUSTAINED WINDS...40 MPH
PRESENT MOVEMENT...N OR 360 DEGREES AT 8 MPH
MINIMUM CENTRAL PRESSURE...1009 MB

#### WATCHES AND WARNINGS

-----

#### CHANGES WITH THIS ADVISORY:

The Tropical Storm Warning has been discontinued from Edisto Beach South Carolina southwestward to the Savannah River.

### SUMMARY OF WATCHES AND WARNINGS IN EFFECT:

A Tropical Storm Warning is in effect for...

\* East of Edisto Beach to Little River Inlet South Carolina

A Tropical Storm Warning means that tropical storm conditions are expected somewhere within the warning area, in this case within the next 12 hours.

For storm information specific to your area, including possible inland watches and warnings, please monitor products issued by your local National Weather Service forecast office.

### **DISCUSSION AND 48-HOUR OUTLOOK**

-----

At 500 AM EDT, the center of Tropical Storm Bonnie was located near latitude 32.1 North, longitude 79.4 West. Bonnie is moving toward the north near 8 mph, and this general motion is expected to continue today. On the forecast track, the center of Bonnie is expected to move near the coast in the warning area later today. A slow northeastward motion near the central and northern coast of South Carolina is expected by tonight and on Monday.

Maximum sustained winds have decreased to near 40 mph with higher gusts. Little change in strength is forecast during the next 24 hours, followed by slow weakening on Monday.

Tropical-storm-force winds extend outward up to 45 miles, mainly to the northwest of the center.

The estimated minimum central pressure is 1009 mb.

### HAZARDS AFFECTING LAND

-----

RAINFALL: Bonnie is expected to produce total rainfall accumulations of 2 to 4 inches with isolated maximum amounts of 6 inches from central and eastern South Carolina to the Georgia border, and 1 to 3 inches farther north across southeastern North Carolina. Heavy rain is expected to develop well north of Bonnie's main circulation into parts of the Mid-Atlantic region and the Northeast with total accumulations of 1 to 2 inches through Monday and isolated maximum amounts of 4 inches.

WIND: Tropical storm conditions are expected to reach the coast within the warning area later this morning or afternoon.

STORM SURGE: Storm surge inundation of 1 to 2 feet above ground level is possible within the tropical storm warning area during the next high tide this afternoon.

SURF: Bonnie is expected to produce life-threatening surf and rip current conditions along portions of the southeastern United States coast through the weekend. Please consult products from your local weather office.

TORNADOES: An isolated tornado is still possible through this afternoon over the immediate South Carolina coastal region.

### **NEXT ADVISORY**

-----

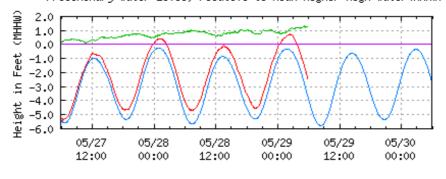
Next intermediate advisory at 800 AM EDT. Next complete advisory at 1100 AM EDT.

Forecaster Stewart

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.

Jump to: <u>Charleston - Water Level</u>, <u>Charleston - Winds</u>, <u>Charleston - Barometric</u>, <u>Oyster Landing (N Inlet Estuary) - Water Level</u>, <u>Springmaid Pier - Winds</u>, <u>Wrightsville Beach - Water Level</u>, <u>Wrightsville Beach - Winds</u>, <u>Wilmington - Water Level</u>, <u>Wilmington - Barometric</u>, <u>Fort Pulaski - Water Level</u>, <u>Fort Pulaski - Winds</u>, <u>Beaufort - Water Level</u>, <u>Beaufort - Winds</u>, <u>Duck - Water Level</u>, <u>Duck - Winds</u>

### NOAA/NOS/CO-OPS <u>8665530 Charleston</u>, <u>SC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide —— (Obs-Pred) —— Observed WL —— MHHW ——

Last Observed Sample: 05/29/2016 05:48 (EDT). Data relative to MHHW Observed: -2.40 ft. Predicted: -3.69 ft. Residual: 1.29 ft. Historical Maximum Water Level: Sep 21 1989, 6.76 ft. Next High Tide: 05/29/2016 14:22 (EDT), -0.63 ft.

#### NOAA/NOS/CO-OPS 8665530 Charleston, SC Wind Speed / Gusts / Direction 30 360 25 direction (true) speed (knots) 270 20 15 180 10 90 5 0 05/27 05/28 05/28 05/29 05/29 05/30 12:00 00:00 12:00 00:00 12:00 00:00

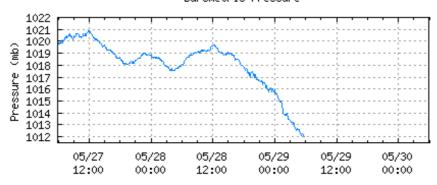
Last Observed Sample: 05/29/2016 05:48 (EDT) Wind Speed: 5 knots Gusts: 8 knots Direction: 355° T

gusts

speed

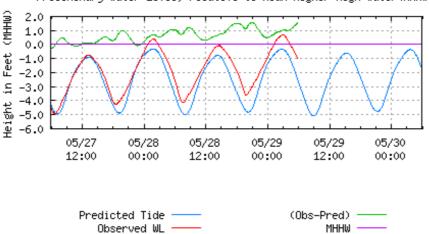
direction

### NOAA/NOS/CO-OPS <u>8665530 Charleston</u>, <u>SC</u> Barometric Pressure



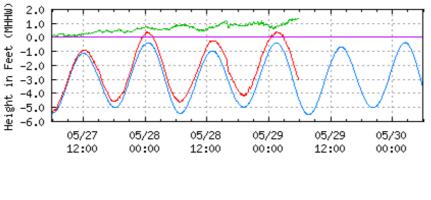
barometric pressure ——
Last Observed Sample: 05/29/2016 05:48 (EDT)
Barometric Pressure: 1012.0 mb

### NOAA/NOS/CO-OPS <u>8662245 Oyster Landing (N Inlet Estuary)</u>, <u>SC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 05/29/2016 05:48 (EDT). Data relative to MHHW Observed: -0.95 ft. Predicted: -2.49 ft. Residual: 1.54 ft. Historical Maximum Water Level: Aug 26 2011, 2.40 ft. Next High Tide: 05/29/2016 15:19 (EDT), -0.59 ft.

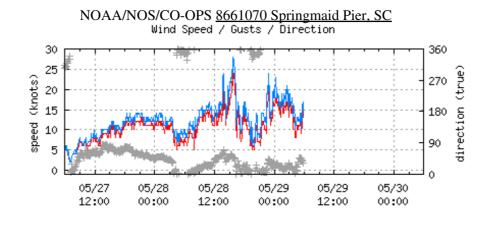
# NOAA/NOS/CO-OPS <u>8661070 Springmaid Pier, SC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide (Obs-Pred) (Obs-Pred) MHHW (MHHW)

Last Observed Sample: 05/29/2016 05:48 (EDT). Data relative to MHHW Observed: -3.02 ft. Predicted: -4.37 ft. Residual: 1.35 ft.

Historical Maximum Water Level: Jan 1 1987, 3.65 ft. Next High Tide: 05/29/2016 14:02 (EDT), -0.68 ft.



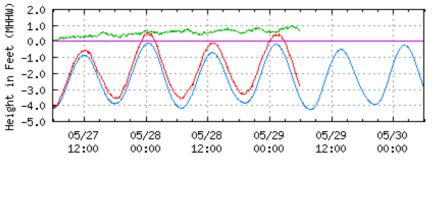
Last Observed Sample: 05/29/2016 05:48 (EDT) Wind Speed: 13 knots Gusts: 15 knots Direction: 32° T

gusts

direction

speed

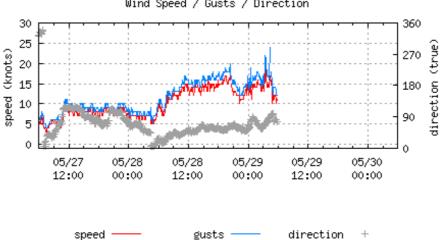
### NOAA/NOS/CO-OPS <u>8658163 Wrightsville Beach, NC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide (Obs-Pred) (Obs-Pred) MHHW (

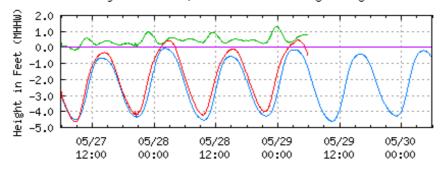
Last Observed Sample: 05/29/2016 05:48 (EDT). Data relative to MHHW Observed: -2.78 ft. Predicted: -3.47 ft. Residual: 0.69 ft. Historical Maximum Water Level: Sep 25 2008, 2.81 ft. Next High Tide: 05/29/2016 13:48 (EDT), -0.51 ft.

### NOAA/NOS/CO-OPS <u>8658163 Wrightsville Beach, NC</u> Wind Speed / Gusts / Direction



Last Observed Sample: 05/29/2016 05:48 (EDT) Wind Speed: 11 knots Gusts: 12 knots Direction: 76° T

### NOAA/NOS/CO-OPS 8658120 Wilmington, NC Preliminary Water Level, relative to Mean Higher High Water(MHHW)



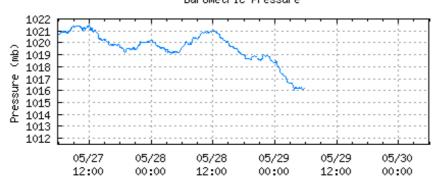
Predicted Tide (Obs-Pred) Observed WL

Last Observed Sample: 05/29/2016 05:48 (EDT). Data relative to MHHW Observed: -0.45 ft. Predicted: -1.26 ft. Residual: 0.81 ft.

MHHW

Historical Maximum Water Level: Oct 15 1954, 3.47 ft. Next High Tide: 05/29/2016 16:03 (EDT), -0.42 ft.

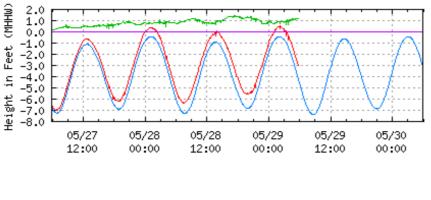
### NOAA/NOS/CO-OPS 8658120 Wilmington, NC Barometric Pressure



barometric pressure

Last Observed Sample: 05/29/2016 05:48 (EDT) Barometric Pressure: 1016.2 mb

# NOAA/NOS/CO-OPS <u>8670870 Fort Pulaski, GA</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide (Obs-Pred) — Observed WL MHHW —

Last Observed Sample: 05/29/2016 05:42 (EDT). Data relative to MHHW Observed: -2.99 ft. Predicted: -4.19 ft. Residual: 1.20 ft. Historical Maximum Water Level: Oct 15 1947, 3.40 ft.

Next High Tide: 05/29/2016 14:40 (EDT), -0.62 ft.

#### NOAA/NOS/CO-OPS 8670870 Fort Pulaski, GA Wind Speed / Gusts / Direction 30 360 25 direction (true) speed (knots) 270 20 15 180 10 90 5 0 05/29 05/30 05/27 05/28 05/28 05/29 12:00 00:00 12:00 00:00 12:00 00:00

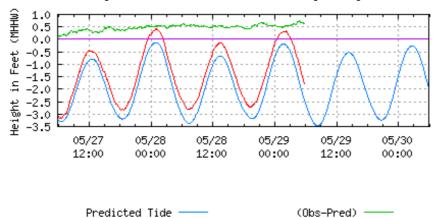
Last Observed Sample: 05/29/2016 05:42 (EDT) Wind Speed: 17 knots Gusts: 20 knots Direction: 283° T

gusts

direction

speed

# NOAA/NOS/CO-OPS <u>8656483 Beaufort, NC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 05/29/2016 05:42 (EDT). Data relative to MHHW Observed: -1.78 ft. Predicted: -2.42 ft. Residual: 0.64 ft.

MHHW

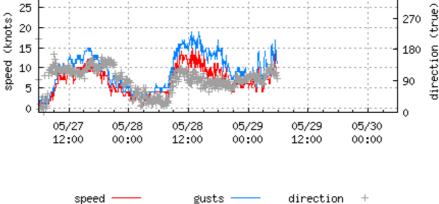
360

Observed WL

30

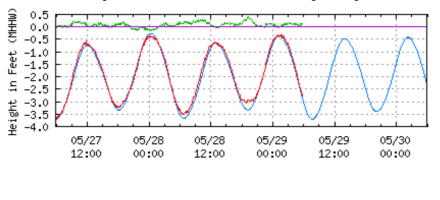
Historical Maximum Water Level: Sep 14 2005, 3.01 ft. Next High Tide: 05/29/2016 14:23 (EDT), -0.52 ft.

# NOAA/NOS/CO-OPS <u>8656483 Beaufort, NC</u> Wind Speed / Gusts / Direction



Last Observed Sample: 05/29/2016 05:42 (EDT) Wind Speed: 7 knots Gusts: 11 knots Direction: 96° T

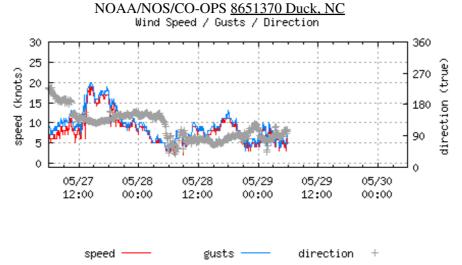
# NOAA/NOS/CO-OPS <u>8651370 Duck</u>, <u>NC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide (Obs-Pred)
Observed WL MHHW

Last Observed Sample: 05/29/2016 05:48 (EDT). Data relative to MHHW Observed: -2.76 ft. Predicted: -2.91 ft. Residual: 0.15 ft. Historical Maximum Water Level: Sep 18 2003, 4.13 ft.

Next High Tide: 05/29/2016 13:56 (EDT), -0.47 ft.



Last Observed Sample: 05/29/2016 05:48 (EDT) Wind Speed: 6 knots Gusts: 7 knots Direction: 107° T

Latest Water Level Observations on MHHW

Station II	Station Name	Date/Time	Observed Water Level	Predicted Tide	Residual Water Level	24 Hour Maximum Storm Tide
8665530	Charleston, SC	05/29/2016 05:48 (EDT)	-2.40 ft	-3.69 ft	1.29 ft	0.74 ft
8662245	Oyster Landing (N Inlet Estuary), SC	05/29/2016 05:48 (EDT)	-0.95 ft	-2.49 ft	1.54 ft	0.70 ft
8661070	Springmaid Pier, SC	05/29/2016 05:48 (EDT)	-3.02 ft	-4.37 ft	1.35 ft	0.43 ft
8658163	Wrightsville Beach, NC	05/29/2016 05:48 (EDT)	-2.78 ft	-3.47 ft	0.69 ft	0.46 ft
8658120	Wilmington, NC	05/29/2016 05:48 (EDT)	-0.45 ft	-1.26 ft	0.81 ft	0.46 ft
8670870	Fort Pulaski, GA	05/29/2016 05:42 (EDT)	-2.99 ft	-4.19 ft	1.20 ft	0.51 ft
8656483	Beaufort, NC	05/29/2016 05:42 (EDT)	-1.78 ft	-2.42 ft	0.64 ft	0.33 ft
8651370	Duck, NC	05/29/2016 05:48 (EDT)	-2.76 ft	-2.91 ft	0.15 ft	-0.32 ft

Center for Operational Oceanographic Products & Services (CO-OPS) | National Ocean Service (NOS) National Oceanic and Atmospheric Administration | U.S. Department of Commerce